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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,952	08/31/2001	Vadim Y. Banine	P 282806 P-0205.010-US	8936

909 7590 06/04/2003
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EXAMINER

FULLER, RODNEY EVAN

ART UNIT PAPER NUMBER

2851

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/942,952

Applicant(s)

BANINE ET AL.

Examiner

Rodney E Fuller

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2851

DETAILED ACTION

Remarks

In response to applicant's Amendment, dated January 30, 2003, the examiner acknowledges the cancellation of claim 5 and the addition of claims 10-16. Claims 1-4 and 6-16 are pending.

The examiner acknowledges the correction of the objections related to the Specification and Claim 9 as set forth in the Office Action mailed September 30, 2002.

Regarding the 35 U.S.C. 102(e) rejection of claims 1-9 as being anticipated by del Puerto (US 6,369,874), the applicant makes the argument that in del Puerto "the pressure zone 104 houses the optics of lithography system 100," "the atmosphere of pressure zone 104 comprises hydrogen gas supplied by photoresist outgassing," and del Pureto "does not disclose a pressure zone 104 containing argon, nitrogen, helium or a mixture thereof." The examiner notes that pressure zone 108 in del Pureto "comprises seventy percent helium" and is "maintained at about 1mTorr." (See column 5, lines 6-10) The examiner maintains that the light source 114 which is located in pressure zone 108 can be considered "at least part of said projection system." Furthermore, argon is used as a barrier gas and which will flow into pressure zone 106 (and 104) (See column 10, lines 12-29). Hence, the examiner has considered the applicant's arguments in light of the amended claims and maintains the rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2851

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4 and 6-16 are rejected under 35 U.S.C. 102(e) as being anticipated by del Puerto (US 6,369,874).

Del Puerto (US 6,369,874) discloses all the structure set forth in the claims.

Regarding claims 1, 8-11 and 14, Del Puerto (US 6,369,874) discloses "...a radiation system (Fig. 1, ref.# 114) to supply a projection beam of radiation; a support structure to support patterning structure (Fig. 1, ref.# 120), the patterning structure serving to pattern the projection beam according to a desired pattern; a substrate table (Fig. 1, ref.# 128) to hold a substrate (Fig. 1, ref.# 126); and a projection system (Fig. 1, ref.# 122E-122F) to project the patterned beam onto a target portion of the substrate, wherein a space (Fig. 1, ref.# 108) containing at least part of said projection system is at a pressure of about 0.1 to 10 Pa and contains argon, nitrogen, helium or a mixture thereof." (Column 5, line 9)

Regarding claims 2-4, Del Puerto (US 6,369,874) discloses wherein the light source is an extreme ultraviolet source with a wavelength range of 10 – 14 nm.

Regarding claims 6, 7, 12, 13, 15 and 16, Del Puerto (US 6,369,874) discloses wherein the pressure in at least one of the spaces is from 2 – 3 Pa. (Column 5, lines 7, 39 and 62) (Note: 10 mTorr = 1.33 Pa and 24 mTorr = 3.19 Pa)

Conclusion

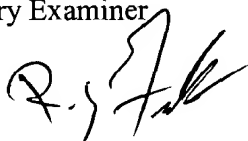
2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney Fuller whose telephone number is (703) 306-5641. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams, can be reached on (703) 308-2847.

Rodney Fuller
Primary Examiner

A handwritten signature in black ink, appearing to read 'R. Fuller', is written over the printed name of the examiner.

May 30, 2003